

REMARKS

The Office Action mailed November 23, 2004, has been received and its contents carefully noted. Applicant notes that all previous objections and rejections of record have been withdrawn except for the rejection of claims 100-139 under 35 U.S.C. §103(a) as being unpatentably obvious over Durand et al. (US 6,272,467 B1) in view of Puram et al. (US 6,289,340 B1).

Applicant now amends claim 100, cancels withdrawn claim 175 without prejudice or disclaimer, and adds new claim 176. No additional claim fee is submitted to be due since dependent claim 175 was cancelled and new dependent claim 176 added so that all applicable fees have been previously paid.

Claim 100 has been amended to specify "substantially separate" in the knowledge base paragraph as follows, "... a knowledge base which is stored in a data storage device which may be said data storage device, which is substantially separate from the user information, the order information, and the provider information ~~and separate from the program code~~, and , which contains facts and rules for problem solving including facts and rules for constructing requests for information by the system, and which is substantially separate from program code that references the knowledge base either directly or indirectly. Applicant considers that this meets the Examiner's request for claiming from which "program code" the knowledge base is substantially separate, i.e., "program code that references the knowledge base either directly or indirectly".

In order to advance prosecution, a personal interview with the Examiner was conducted on February 8, 2005, for which Applicant expresses thanks to the Examiner. A separate record of the interview follows as required.

Proposed changes to claims 100 and 110, and proposed new claims 176 and 177 were presented and discussed during the personal interview of February 8, 2005. The Examiner's attention was directed to claim 100 where "a data storage device" was described as a hardware element similar to the web server 55 shown in Fig. 1c of Puram et al. Undersigned Counsel described Applicant's reasoning for amending claim 100 to recite "knowledge base ... substantially separate from program code..." with reference to new dependent claim 176 which recites "... wherein the knowledge base is substantially separate from the program code but may

(09/973,251)

have supporting programs stored therein including at least one of components, sections, and sub-routines." Applicant's knowledge-base may contain snippets of program code such as sub-routines which finds support in the Published Application at least in paragraphs 0567 and 0569. However, Applicant's knowledge base is substantially separate from program code. The Examiner commented that he would like to see claims 100 and 176 specify which "program code" is being referred to. The discussion included the merits of the Examiner's positions and Applicant's positions, and Undersigned Counsel pointed out that an accepted definition of "process" in the computer art states that "a process consists of program code" so that the process 68 of Puram et al. is excluded from Applicant's "knowledge base" by fundamental definition.

Claims 100-139, and 176 are active in this Application as being directed to an embodiment which was elected in responding to a restriction requirement and are all submitted to be in allowable condition for the reasons set forth in the following. Claims 1-28, 48, 83, 159 and 175 have been cancelled. Claims 29-47, 49-82, 84-99, 140-158, and 160-174 are pending in this Application but stand withdrawn as having been non-elected. Upon allowance of elected claims 100-139, and 176, Applicant authorizes the Examiner to cancel withdrawn claims 29-47, 49-82, 84-99, 140-158, and 160-174 in an Examiner's Amendment to place the Application in allowable condition.

The rejection of claims 100-139 under 35 U.S.C. §103(a) as being unpatentably obvious over Durand et al. (US 6,272,467 B1) in view of Puram et al. (US 6,289,340 B1) is respectfully traversed. The Examiner maintains that the data receiving and interrogating process 68 of Puram et al. (Col. 3, lines 31-39, and Fig. 1c), particularly the artificial intelligence variant thereof (Col. 6, lines 15-31), is a separate "knowledge base" and thus supplies the disclosure absent from Durand et al.

Applicant does not agree with the Examiner's position that the combined disclosures of Durand et al. and Puram et al. set out a prima facie case of obviousness against claims 100-139. Applicant respectfully disagrees that the data receiving and interrogating process 68 of Puram et al. is a separate "knowledge base" within Applicant's claim 100. A "process" in the context of Puram et al. is submitted to consist of program code by definition whereas Applicant's

knowledge base is "substantially separate from program code that references the knowledge base either directly or indirectly" (see claim 100) so that it may not be fairly said that Puram et al. teaches Applicant's knowledge base.

In support of the fundamental difference between Applicant's knowledge base and Puram et al's process 68, Applicant submits that the following definitions of "knowledge base", "artificial intelligence", and "process". These definitions are submitted to be representative of those commonly accepted in the operating system and computer science context. A copy of the "knowledge base" definition was previously submitted. Copies of the definitions of "artificial intelligence" and "process" are attached as Appendix B and C.

**"Knowledge base"**: "n. ... 1. Computer Science. The part of an expert system that contains the facts and rules needed to solve problems [emphasis added]. 2. A collection of facts and rules for problem solving." (see The American Heritage(r) Dictionary of the English Language, 4th Ed., (c) 2000, Published by the Houghton Mifflin Company).

**"Artificial Intelligence (AI)"**: n. The subfield of computer science concerned with the concepts and methods of symbolic inference by computer and symbolic knowledge representation for use in making inferences. AI can be seen as an attempt to model aspects of human thought on computers. It is also sometimes defined as trying to solve by computer any problem that a human can solve faster. The term was coined by Stanford Professor John McCarthy, a leading AI researcher. Examples of AI problems are computer vision (building a system that can understand images as well as a human) and natural language processing (building a system that can understand and speak a human language as well as a human). These may appear to be modular, but all attempts so far (1993) to solve them have foundered on the amount of context information and "intelligence" they seem to require. The term is often used as a selling point, e.g. to describe programming that drives the behaviour of computer characters in a game. This is often no more intelligent than "Kill any humans you see; keep walking; avoid solid objects; duck if a human with a gun can see you." (see Appendix B, <http://www.Dictionary.com>, Source: The Free On-line Dictionary of Computing, (c) 1993-2004 Denis Howe).

**"Process"**: 1. <operating system, software> The sequence of states of an executing program. A process consists of the program code (which may be shared with other processes which are executing the same program), private data, and the state of the processor, particularly

(09/973,251)

the values in its register. It may have other associated resources such as a process identifier, open files, CPU time limits, shared memory, child processes, and signal handlers. One process may, on some platforms, consist of many threads. A multitasking operating system can run multiple processes concurrently or in parallel, and allows a process to spawn "child" processes [emphasis added]." (see Appendix C, <http://www.Dictionary.com>, Source: The Free On-line Dictionary of Computing, (c) 1993-2004 Denis Howe).

As the Examiner acknowledges, element 68 in Puram et al. is a "process". This fact is evident from Puram et al. which discusses the nature of process 67, process 68, and database(s) 65 at Col. 3, lines 31-39, which state, "The server 55 carries or is able to access one or more databases 65 which store and process data about candidates and the positions to be filled. Several processes are performed by the server or another computer, including gathering and interrogating data from candidates 67, gathering and interrogating data from employers about positions to be filled 68, and then searching the database to find and rank candidates whose qualifications suit the needs of the positions to be filled".

This fact is additionally evident from Fig. 1c of Puram et al. which schematically shows the relationship of process 67, process 68, and database(s) 65 (note the square box around elements 65, 67, 68, and 69 indicating that they are constituent parts of the web server 55) and, regarding process 68, states, "DATA RECEIVING AND INTERROGATING PROCESS 2 FOR GATHERING NEEDS DATA AND EMPLOYER DATA".

Applicant submits that the distinction between "process 68" of Puram et al. and the "knowledge base" of Applicant's claim 100 is fundamental. Applicant's knowledge base is substantially separate from program code that references the knowledge base either directly or indirectly" (see claim 100) whereas a process consists of the program code (see the definition of "process" above) as one of ordinary skill in the art would understand.

In view of this fundamental distinction., Applicant respectfully submits that process 68 of Puram et al. is not and cannot be a knowledge base which is substantially separate from program code that references the knowledge base either directly or indirectly within Applicant's claim 100. Moreover, Applicant submits that even if artificial intelligence is used in process 68, process 68 of Puram et al. does not constitute a separate knowledge base which meets Applicant's claim 100.

Applicant further submits that one of ordinary skill in the art with knowledge of the disclosure of Puram et al. would not have been led or motivated to maintain the process 68 separate from the program code contrary to the Examiner's position. This is because (1) a process in this context consists of program code so that the process would be destroyed for its intended purpose if program code is separated from it and (2) because the information stored in Applicant's knowledge base is, by its nature, so extensive and so rapidly changing that it has to be maintained substantially separate from the user information, the order information, and the provider information, and substantially separate from the program code.

Applicant additionally submits that if - for the sake of argument - process 68 is considered to be a knowledge base, one of ordinary skill in the art with knowledge of the disclosure of Puram et al. would not have been led or motivated to maintain the process 68 separate from program code.

A process in this context, whether considered a knowledge base or not, consists of program code so that the process would be destroyed for its intended purpose if program code is separated from it.

Applicant additionally draws the Examiner's attention to the fact that there is no reference in Puram et al. to where or how the "methodologies, industry knowledge and related technologies" of the artificial intelligence embodiment are stored. That is, Puram et al. read as a whole is not seen to make reference to a database containing both facts and rules for problem solving, i.e., to a knowledge base, even though various databases containing user facts are mentioned.

The Examiner considers that process 68 of Puram et al. is a knowledge base and relies on the teaching of a variant at Col. 6, lines 15-31, in which the system/method utilizes artificial intelligence to query the employer about the employer's needs for a position. The Examiner considers that the system uses a branching method to access appropriate follow-up questions in light of information provided in earlier steps by the employer. The Examiner thus concludes that this embodiment of Puram et al. does in fact include a knowledge base, i.e., process 68, which is separate from the database 65. Applicant does not agree with the Examiner's positions for the reason given above, namely, that Applicant's knowledge base is substantially separate from program code that references the knowledge base either directly or

(09/973,251)


indirectly" (see claim 100) whereas a process such as process 68 of Puram et al. consists of the program code (see the definition of "process" above) as one of ordinary skill in the art would understand.

In view of the foregoing amendments and remarks, Applicant submits that the rejection of record is not well founded and should not be maintained. Applicant therefore requests that the rejection of record be reconsidered and withdrawn, that claims 100-139, and new claim 176 be allowed, and that the Application be found to be in allowable condition.

Should the Examiner not find the Application to be in allowable condition or believe that further conference would be of value in expediting the prosecution of the Application, Applicant requests that the Examiner telephone undersigned Counsel to discuss the case and afford Applicant an opportunity to submit any further response that might advance prosecution and place the Application in allowable condition.

Respectfully submitted,

Date: February 23, 2005

  
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